



Wind farm struggles in Flanders fields: A sociological perspective



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HIGHLIGHTS

- Flemish wind farm siting is characterized by social, spatial and political distances.
- These symbolic distances make the legitimacy of new infrastructure less self-evident.
- The current 'decide-announce and defend' siting procedure is a problem for acceptance.
- We propose a siting procedure for wind farms which allows democratic debate over alternatives between stakeholders

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ABSTRACT

In this article we analyse how protests against wind farms reflect symbolic distances or alienations, typical to Flanders (Belgium), as consequences of wider societal trends. A thorough qualitative study of three wind farm projects in Flanders, including group discussions and interviews with crucial stakeholders, shows that the current siting process reinforces disagreements and leads to a stalemate between different framings of the wind farms. Using insights from our case studies and the literature, we argue for spatial planning which strives for a negotiation over acceptable solutions rather than acceptance of fixed proposals.

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1. Introduction

Conflicts about the siting of wind farms all over the world has inspired a substantial body of academic literature. In popular discourse, these protests are still seen as the result of NIMBY (Not In My Backyard) behaviour, which implies that people have no objection to a certain activity or technology (or even support it) as long as it does not negatively affect their personal living environment. However, in the context of wind turbines, this assumption has no empirical evidence. There is widespread consensus within the academic literature to avoid the NIMBY predicate for explaining wind turbine siting conflicts (Barry and Ellis, 2011; Burningham et al., 2006; Devine-Wright, 2011; Schively, 2007; Wexler, 1996; Wolsink, 2000). Strict NIMBY behaviour is actually rather rare (Wolsink, 2000). Many studies demonstrated that different evaluations and perceptions of the landscape impact of the infrastructure should be seen as the main reason for concern and tension (Devine-Wright, 2009; Ellis et al., 2006; Johansson and Laike, 2007; Van Rompaey et al., 2009; Warren et al., 2005; Wolsink, 2007b, 2011). Opponents of the siting of wind turbines also claim that the

continuous exposure to sound or flicker shadow of wind turbines can impact upon people's physical or psychological health (Blackburn et al., 2009). The perception of the impact of a wind turbine is heavily influenced by psycho-social factors such as place attachment (Devine-Wright, 2007, 2009); by distributive and procedural (in) justice (Gross, 2007); by trust (Walker et al., 2010), and by social cohesion (Devine-Wright and Howes, 2010). Other articles have focused on the meso-level and point to more institutional factors, such as citizen involvement, the planning regime and ownership relations, in explaining negative perceptions and protest against the siting of wind turbines (Agterbosch and Breukers, 2008; Agterbosch et al., 2007; Toke et al., 2008). Agterbosch and Breukers (2008) argued that wind turbines are the source of multiple conflicts over interests and meanings. The implementation of wind power eventually depends on the outcomes of these struggles. To explain the differences between regions, they looked at their socio-political embedding, the process through which wind power, a new technology, becomes embedded in existing and changing rules and routines of politics, policy and society. The problem of social acceptance is understood from an institutionalist point of view. Compared to social psychological and institutionalist perspectives, the contribution of sociology to the literature on the social acceptance of wind power has remained limited. Wind farm planning in Belgium is also widely under researched and limited to one study (Van Rompaey et al., 2009).

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In this article, we examine the protest against wind farms in the region of Flanders, in the North of Belgium, by applying the sociological insights of [Mormont \(1997, 2006\)](#) in his work on the NIMBY phenomena. In his view, siting conflicts should be mainly seen as framing conflicts that aim at redefining these objects. Framing refers to the selection process of some aspects of a perceived reality and making them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation and/or treatment ([Entman, 1993, p. 53](#)). Wind turbines are the source of multiple conflicts over interests and meanings, which leads to multiple discourses about wind farms, reflecting these competing values and interests ([Ellis et al., 2006](#); [Van Rompaey et al., 2009](#); [Wolsink, 2011](#)).

[Mormont \(1997\)](#) argued that siting conflicts over new infrastructure are a normal result of dynamics in society. He clarified four crucial social trends, all crucial in understanding siting conflicts: delocalisation, individualization, globalization and the advent of the risk society. These social trends have led to increased spatial, political and social distances. With distance we refer to different types of social alienation, not so much to locational distance. It is similar to the sociological concept of 'social distance' as the degree of closeness or acceptance we feel toward other groups or activities. In the article, we discuss spatial distances between the costs and benefits of functions; social distances between local residents and developers of economic activities (such as wind farms); and political distances between local communities and the competent authorities (as the decision-making shifted towards supra-local, unelected administrations). These shifts cause increasing polarisation between the costs and benefits, the goods and the bads, of economic activities, such as wind energy production. Due to this polarisation, the general interest becomes hard to define. The classic decision-making procedures, however, fail to handle these controversies. [Mormont](#) therefore claims that we should learn to live with siting conflicts, as they represent normal phenomena in a democracy and we should find a way to adequately deal with these issues.

In this article, we want to point out how social, spatial and social distances affect the acceptability of wind farms in Flanders. We conducted a thoroughgoing qualitative study of three siting disputes in Flanders, using a wide variety of information sources, including group discussions and interviews with important local and regional stakeholders and a document analysis, in order to understand the difficulties for developing wind power in Flanders in the 2010s. The sociological concept of distance helps us to understand the social acceptability issues. The added value of this exercise lies in placing unique local stories of resistance to wind farms into their wider societal context. We conclude by rethinking participation in the planning process and evaluating policy developments in Flanders.

2. Research design

We used the concept of distances to understand and categorize the social acceptability issues in the three analyzed wind farm cases. Therefore, we aimed at reaching a good understanding of the siting history and organized group discussions within a heterogeneous steering group on facts and bottle-necks, with representatives from government, civil society, regulators, wind farm developers. We also interviewed a purposeful sample of 10–15 stakeholders for each case. We interviewed wind power developers, spokespeople from protest groups, local and provincial civil servants, members of the local council, local organizations and regulators from the provincial and regional authorities. The selection was prepared on the basis of concertation on criteria

with the steering group. All the interviews were conducted in Dutch between January and July 2011.

The case studies are located in different municipalities (*Veurne, Maldegem, Lille and Vorselaar*) in different provinces in Flanders. They are comparable from a technical point of view and all are located in an agrarian landscape, yet next to highways and in the vicinity of a residential area. Our case selection poses some limitations, because we only investigated wind farm proposals from one and the same company and only analysed cases that – ultimately – turned out to be rejected by the regulators. Since we started our data collection during the siting process, this could not be anticipated. We recognize the lack of differentiation in our case selection as being a limitation. However, one advantage of this lies in the comparability of the cases. The findings were also discussed in terms of their validity – with representatives of the field practices – in the steering group of the research project. The rejection of permit requests is also very common. In 2010, only 23% of the requested wind turbines received a positive final response from the authorities ([Vlaams Energie Agentschap, 2011](#)).

Therefore, we dare to claim that these findings are relevant for the wider institutional context in Flanders, but that our results and ideas also have interesting outcomes for other contexts, as these distances and the decide-announce and defend model are not restricted to the region of Flanders.

3. Results

3.1. Wind farm development in Flanders

Flanders is an industrialized and densely urbanized region with a high population density in the North of Belgium. In Belgium, a federal country, the regional governments are responsible for the development of onshore wind energy. The development of wind power in Flanders only really took off at the start of the 2000s when the Flemish government opted for a green certificate system combined with quotas, which has remained stable for many years now. Flemish wind power development has been a top-down development. Bottom-up developments are an exception. According to the Social Economic Council of Flanders, the current green certificate system in Flanders benefits existing, large scale energy producers and limits the room for new, participatory initiatives ([Sociaal Economische Raad Vlaanderen, 2011, p. 449](#)). Venues for public engagement are limited and zones for wind energy development have been proposed with hardly any local involvement. Previous studies, however, have highlighted the widespread support in opinion polls for wind power in Belgium ([Eurobarometer, 2006](#); [Howest, 2010](#); [IPSOS Belgium, 2010](#); [Van Hamme and Loix, 2011](#)).

The Flemish government and its Energy Agency aim to increase the share of onshore wind power to 1063 MW by 2020 ([Vlaamse Regering, 2010](#)). The total onshore wind capacity has steadily risen to 191 turbines with a total capacity of 341.7 MW at the end of 2011 ([VWEA, 2012](#)), failing the 550 MW by 2010 target. The wind power sector in Flanders is dominated by two to three big players and a number of smaller new emerging developers. Most private energy producers do have integrated a system for financial participation in their business model. Intermunicipal organizations play an important role in the development of wind power, because of their shares in the two largest wind power producers. There is also a rising interest in cooperative energy production with consumers ([Adriaen, 2011](#); [Delepeleire, 2011](#)).

The Flemish Official Directive for Wind Power ([Vlaamse Regering, 2006](#)) is the basis/model for siting wind turbines in Flanders and provides spatial guidelines and environmental criteria. The criteria for sound emissions and flicker shadow have

become stricter. The Directive also installed the Wind Working Group, which assembles all the relevant authorities and experts at regional and provincial level. The Group advises wind farm plans, selects locations for wind power development and advises permit requests. The construction of a wind farm requires two permits: the environmental permit is handed out by the provincial authority and the construction permit is handled by the planning officer of the Flemish government. The Flemish government aims to follow its Walloon counterpart and is planning to create one single permit.

Experiencing the scarcity of suited areas and in order to limit the visual and spatial impact of wind turbines, most provinces in Flanders have designated zones for the development of wind turbines. However these zones are not legally binding and projects are rejected in these zones as well.

4. Spatial distances

The use of energy in society, expressed by practices through which energy is harnessed, transported and consumed, has always played a key role in the structuring of territories, landscapes and identities (Nadai and Van Der Horst, 2010, p. 144). In this section, we will explain how tensions around the siting of wind farms are affected by spatial developments in the Flemish landscape, and how these developments have shaped the way we think about the acceptability of wind turbines in landscapes. With spatial distance we not only refer to the actual physical separation between different activities such as energy production and consumption (the locational distance). We also mean an increased normative distance of these activities: the idea that economic activities should be separated rather than interwoven. These developments cause increasing polarisation between the costs and benefits, the goods and the bads, of economic activities, such as wind energy production. It also clashes with the scattered, fragmented geography of Flanders. Pasqualetti (2000, 2011), Pasqualetti et al. (2002) described some very interesting changes in the relationship between energy and landscape. He describes how the industrial revolution saw shifts from local energy resources to fossil-fuelled and, more recently, nuclear energy production. Energy became mined or drilled somewhere far away and then transmitted to electricity in big new energy plants far away from residential areas. The almost complete dependency on non-renewable energy has converged with an alienation from its production, at considerable distance from residential areas and the environmental costs. Wind power breaks with this tendency towards functional differentiation and increasing spatial separation. It increases the proximity of energy production to residential areas and makes it more visual again. This might be welcome for those who believe in the ecological virtues of renewable energy, but others will perceive it as an external intrusion into the landscape they feel attached to.

Modernity has decreased spatial barriers in practical terms through new telecommunication technologies and transportation means which were made possible by the intensive use of fossil fuels (Thompson, 1995). However, the more and the faster people can travel, the further away they move. The average daily travel time therefore has remained stable (Van Wee et al., 2010). As mobility and capacity to go from one place to another, increasingly, our connection to places alters (Mormont, 2006; Van der Horst, 2007) and the spatial distribution of costs and benefits that come along with economic activities becomes more unequal. Particularly after World War II, the countryside changed drastically in Flanders, as many people moved away from the city, encouraged by increased mobility capacities. As a consequence, this resulted in a huge growth in infrastructure and consumption of space. In Belgium, these processes were, to a large extent,

supported by political–ideological decisions (Kesteloot, 2003). On the other hand, economic units became increasingly localized in industrial zones and offices in commercial zones, away from residential areas. The traditional boundaries between city centre and suburbs, city and countryside, and residential and rural areas have faded. What remains is ‘urban sprawl’, which is almost synonymous with Flanders’ scattered settlement structure. Flanders’ urban sprawl is the combined result of a historical settlement pattern which already had linear characteristics, a cultural mentality that values individuality and private detached house ownership and the political promotion of dispersed residential development (Tempels et al., 2011). These developments, combined with a high population density and a careless spatial planning policy has made Flanders the most fragmented region in Europe (EEA, 2004).

At the same time, an increasing number of people consider the detached, suburban or even urban home as a place with its own identity and value which ought to be protected from external threats. In this context, the siting of a wind farm can pose an external threat to the – long term – financial and emotional investments of new residents (Krohn and Damborg, 1999; Mormont, 1997; Tempels et al., 2011; Van der Horst, 2007; Zoellner et al., 2008).

These spatial developments have led to different framing and perceptions of landscape. This was also obvious in our case studies. While opponents of the project focused on the uniqueness of the landscape, its ecological value and a source for peace and rest, stressing the incompatibility of the landscape with wind turbines or the unequal distribution of costs and benefits; supporters framed the landscape as a site which met all legal and technical requirements and stressed the benefits of wind power. Therefore, we argue that wind farm disputes should be seen as conflicts between actors who frame their interest as the conservation of a landscape which is threatened by the local, tangible impacts of wind turbines and actors who frame the issue by stressing the global, imperceptible and fundamentally intractable benefits.

5. Interfering political distances

In late modern industrial societies, there is not only a spatial cleavage but also a political cleavage between the authorities who decide on the siting of infrastructure, and the people who have to deal with the consequences of these decisions (Mormont, 1997). This distance does not refer to an actual physical separation between political entities, but to an affective alienation between groups in society. Political distance refers to local communities and decision-makers. Political participation has partially shifted away from traditional to more fluid, less formal behaviour (Huyse, 1999). Attention to political parties and elections has decreased and shifted to less institutionalised forms of political participation. Political participation has shifted to demonstrations, single-issue groups, boycotts and petitions. Political parties and politicians experience low levels of trust. The demand for political intervention seems to be greater than ever, but its ability to do so has decreased. People seem to have lost their trust in ‘politics as usual’ to deal with an ever more complex world system. At the macro and meso level, the political power of ordinary citizens remains minimal and indirect. Decision making remains limited to a small group of politicians, bureaucrats and representatives of powerful interest groups. There is more room for citizens’ initiatives to have a direct influence at the local level. Environmental policy and spatial planning are the policy domains where the strength of citizens’ voices can be heard clearly, because the consequences of the decisions made in these domains have direct impact on their lives neighbourhoods (Goorden, 2010). The centralized power that

characterizes Belgian and Flemish environmental and spatial competences coincides with the decline of community in a modernized society. The emancipation of territory, local identification and integration implied a loss of attention to this political level. Conflicts about the siting of wind farms illustrate this political cleavage and are a reaction against political upscaling and technocracy.

The three wind farm proposals were all what Wolsink (2007b) defines as: ‘develop–announce and defend-projects’. Local councils only have an advisory function and are charged to organize the public enquiry. Many local councils wait for the results of the public enquiry before they make a statement or become active objectors (as in Maldegem) even before the public inquiry. Table 1 on the next page shows the mismatch between accountability and responsibility in the decision making process. The debate, electoral consequences and responsibility reside at the local level, but the decision is taken at a higher level which does not have to take the opinion of the community into account.

The advisory function of the local community is not so much the problem. Energy and planning policy is something which exceeds the territory of a community and it would be detrimental to make the community council completely responsible for handing out permits. It is the lack of possibilities for meaningful citizen involvement and democratic decision making which poses problems for community acceptance. The current siting process does not encourage those partially or fully supportive of the project to come forward, because they do not see any real advantage in doing so and do not have the possibility to engage in the decision-making process in a constructive way. The project is only represented and defended by the (private) promoter of the wind farm. The project developer, however, often suffers from a social distance towards the community and does not represent voters. The protest group, on the other hand, often makes very concrete references to the tangible, local consequence of the wind turbines and has connections with local media and politicians, which the developer lacks. The local debate is then often focused on the negative aspects of wind farms. In this respect, new emerging developers try to focus explicitly on this issue by engaging the local community through financial community participation, additional activities and constant communication facilities.

In Flanders, public engagement, through information meetings or the discussion of alternatives, is not required as regards the siting of a wind farm. The only formal occasion for political participation is restricted to the public inquiry at local level, which allows citizens who claim to have an interest to respond and put forward objections about the siting within one month. The current public inquiries have some limitations in making a project acceptable. First, they are organized when the project is already completely fixed and finalized. Citizens have the choice between the approval or rejection of a fixed plan. The consultation in our case studies only led to negative responses and did not facilitate trust or creative solutions since interaction is impossible. Second, authorities who hand out the permits can only take into account legal restrictions about spatial planning, hindrance issues and safety issues. Grievances about the initial policy objectives, decline of house values, impact on local tourism, the decision making process, etc. cannot be taken into account, but are often really

influential for the nature of objection. This narrows down the scope of the debate and can increase feelings of procedural injustice.

In our group discussions and interviews with developers, civil servants and local politicians, these representatives acknowledged the limited means for participation, but did not see many options on how to further engage communities. They blamed the scarcity of possible locations, the competitive situation and the strict spatial planning guidelines. While agreeing on the positive aspects of extended dialogue, they feared that more participation would only lead to more disappointment and increasing numbers of protests.

6. Evolutions in planning policy

In our case studies we have identified many bottlenecks, including the lack of citizen engagement, which are often also recognized by the responsible officials at various policy levels. In this section, we would also like to evaluate these policy changes in light of political distance. First, we discuss changes in the planning of wind turbines as proposed by the Flemish Energy Agency (FEA) and the Wind Working Group; and second, we discuss a project of the province of *Oost-Vlaanderen* to further develop the case of *Maldegem*.

The Flemish government aims to speed up the planning process and decrease the large number of rejected permit requests. The goal is to integrate the environmental and building permit and establish more collaboration between the different levels and domains through the Wind Working Group. The Flemish government also aims to focus on developing and facilitating zones in the harbour areas and next to highways where fewer people live, in order to limit the risk of local opposition (VEA, 2011). They also see a larger role for the Wind Working Group in advising developers before they actually request a permit for their project and assisting the development of positively advised wind farms. To conquer ‘NIMBY’ feelings, the FEA advises earlier involvement of the municipal council, financial participation for residents and more ‘objective’ information to tackle misconceptions about wind turbines.

The simplification of the planning procedure is an important step and improves the efficiency of wind power planning by decreasing the political distances between various policy levels, but it does not necessarily increase the acceptability of projects. As the investigated cases showed, more ‘objective’ information cannot solve conflicts and financial participation without discernible influence, although a step in the right direction, it is unlikely to generate automatic *ex ante* acceptance (Cowell et al., 2011). Moreover, the Flemish government has not yet tackled the major current bottleneck in planning: the wind ‘rush’ on the sparse zones for wind power development.

At the local and provincial level, we can find a better application of more participatory planning which allows discussion of the different views, knowledge, values and interests of the various stakeholders. Around *Maldegem* (one of the cases we studied for this article), the provincial authority, with the support of the Flemish government, an elaborate strategic planning process

Table 1
The mismatch between accountability and responsibility.

Authority/role in the process	Permitting authority	Local authority
Responsibility	Handing out environmental and building permit	Organization of public inquiry+distribution of information+providing advice
Knowledge	Concentration of technical and juridical expertise	Limited knowledge
Electoral consequence	Limited electoral accountability	Strong, possible electoral accountability

started, called 'Oost-Vlaanderen Energielandschap', to refine the zones for wind energy development in a more participatory way (De Buck, 2012; Provincie Oost Vlaanderen and Adoplan, 2012). The community councils of that area were opposed to further wind energy development and there was a complete stalemate between protest groups and the council of Maldegem on the one hand, and the provincial authorities on the other. The strategic planning process offers a more democratic debate between scenarios: a phased, planned coordination which tries to balance costs and benefits through financial participation and mitigation measures. Stakeholders and the public have been thoroughly consulted through meetings and surveys. The provincial council will then decide which is conceived as being the most socially acceptable for the energy landscape, after the environmental effects of all possibilities have been examined (and local elections have passed). Previous efforts and other forms of renewable energy will also be taken into account. Although old antagonisms have not been completely erased (the council of Maldegem still opposes new wind turbines in its community), there seems to be increasing agreement between many actors around one scenario, where revenues are invested into public facilities and landscape management. Most actors experience the process and debate as constructive and want to continue the process. The case of this planning process shows how a more democratic approach helps to generate the necessary trust to find acceptable solutions.

Previous research has argued that a more open planning process should therefore be seen as an aspect of procedural justice, rather than a way to generate *ex-ante* acceptance (Cowell et al., 2011; Ellis et al., 2009; Gross, 2007).

Barry and Ellis (2011) have argued that citizen engagement should aim for a more equal distribution between costs and benefits, but should also offer the community a meaningful choice. This means that the affected community should actually have a choice between alternatives, including the right to veto the development through an open and fair process. To prevent free-rider behavior of communities and distributive injustices, they propose a regulatory system which provides the appropriate context for a democratic debate, with a need for a top-down (national or international) low carbon energy strategy in which communities (spatial or other) know that they must achieve carbon reduction targets, but with a – bottom up – degree of flexibility about how to do this.

This can help generate a move away from the focus on costs and benefits, which is a sub optimal framing strategy: in the case of the siting of a wind farm, the local costs most of the time outweigh the local benefits (Pralle and Boscarino, 2011).

Although the siting conflict was fundamentally a debate between the local costs of a wind turbine versus the benefits of wind power, we cannot reduce this to a conflict between the local versus the general interest. This has been stated in several studies on siting conflicts (Lake, 1987; Lesbirel, 2011; Pellizzoni, 2011; Wexler, 1996). In our case studies, objection was not limited to local actors either. All the permit requests we investigated were declined, not because of the occasionally impressive public outcry, but because government institutions vetoed the permitting of the wind turbines, although all the cases were planned in zones that were designated by the provincial authority as suitable. In the case of Maldegem, the wind farm was officially declined because it was located in a green area and because it was not integrated enough in the landscape. In Veurne, permit requests were declined by the Landscape & Heritage Department and the Air Force because of the proximity to a military airport. In Lille-Vorselaar, it was also the Ministry of Defence which stopped the project because of a nearby NATO reserve airport. Our findings thus affirm the limited influence of protest groups on the siting of wind farms, although involved parties often presume the opposite (Aitken et al., 2008;

Wolsink, 2007a). Action groups do have a strong influence on the local advice, but not on the final outcome. The number of objection letters and local advice is just one of the many factors that are taken into account during the licensing. However, local power should not be completely underestimated, as local politicians often have connections with powerful actors at the provincial level who hand out the environmental permit.

Overall, our findings suggest that political distances not only lead to a democratic deficit, but are also the source of acceptability issues. The decision-making process was not open to alternatives and mitigation measures, which are crucial aspects of an independent environmental impact assessment. The importance of procedural and distributive justice during the siting of wind farms has been addressed in numerous studies (Agterbosch and Breukers, 2008; Barry and Ellis, 2011; Breukers and Wolsink, 2007; Cowell et al., 2011; Devine-Wright, 2011; Gross, 2007; Loring, 2007).

7. Social distances

Apart from the spatial distances between functions and the political distances between decision makers and local communities, Mormont (1997) also points to the increased social cleavage between local communities and the developers of economic activities. This is similar to the difference in risk perceptions by experts and laypeople. Previous research has argued that social acceptance of wind turbines is higher when the developer of the wind farm is locally embedded (Breukers and Wolsink, 2007; Toke et al., 2008).

Planning and policy is increasingly dependent on 'experts'. Conflict over a wind farm is about the future consequences of a wind farm rather than a direct sensory experience of hazards. It is the task of experts to identify, measure or estimate the effects of a wind turbine. Expertise is, however, constantly challenged and rebutted by other research. The increased importance of scientific knowledge paradoxically leads to more uncertainty about the risks (Beck, 1992).

Risk calculations are supposed to estimate and legitimate the potential hazards. No matter how robust the objective risk analysis may be, the ways in which risks are perceived, ranked and given priority in people's lives are a function of many things not captured in statistical risk assessments (Kunneiman, 1998; Rhorrman and Renn, 1992). Trust, for instance, in the competent authorities is a crucial factor in the perception of risks and decision-making over these risks. Whether externalities are acceptable, where and how wind turbines can be constructed and the distribution of revenues, is not a scientific or technical question, but a political and social one.

The current siting process in Flanders fails to generate the necessary trust at the local level between the different actors. The combination of a rising number of wind entrepreneurs, the scarcity of suitable locations, the provinces' zoning policy and the lack of strategic spatial planning has led to a 'wind rush' on the available land and generated a very competitive environment between developers. Developers are almost forced to sign the right land leases and hand in the permit requests as quickly as possible, because authorities address the permit requests in chronological order. This limits their time for both interaction with inhabitants and early engagement, because developers run the risk of losing their location to a competitor. The acceptance of a wind farm is a process which takes time and should therefore begin early on in the planning phase. However, the current competitive system leads to a situation where the developer can only start engaging the local population after the project is already fixed and proposed. The system also disadvantages smaller players

and cooperatives which do not have the time or resources to act as quickly as the large-scale wind power producers. The numerous proposals do not often take into account other permit requests, which increase the uncertainty about the future number of possible wind turbines and negative externalities. This leads to a loss of control amongst community members.

There is also a lack of 'neutral' or impartial arbiters. Regulators are often seen as implicit supporters for the wind farm project, rather than arbiters, further encouraging oppositional activity. The environmental impact assessment has to meet a standard but is not independent, as it has to be taken up by the developer in order to detect and raise consciousness on mitigating measures, whose interest, of course, is to site wind turbines. If the developer is not trusted, the information provided by his/her assessment as well as the visualizations and risk analyses that are supposed to facilitate the rational debate become a source of mistrust. In the case of *Veurne* some objectors claimed that the visualizations from the developer were severely criticized because they did not appear realistic. This is also the case for sound and flicker shadow regulations. Many residents did not feel protected by regulation or did not believe that the wind turbines could be temporarily shut down to stop flicker shadow if they exceeded the daily limit of 30 min. The system of ad hoc permit requests, without openings to check the environmental impact assessment design and inclusion of alternatives makes the building of trust between stakeholders almost impossible. This needs to change if social acceptance is to be taken seriously.

However, it remains questionable whether trust alone can really overcome fundamental differences between groups. In the three cases examined, we witnessed how both objectors and supporters referred to science to validate their arguments and claim the 'general interest'. The wind developer used risk analyses to calculate, predict and control the possible impacts of the wind turbines. Developers also referred to the scientific consensus around man-made climate change and to surveys which demonstrate the public support for wind power, to legitimate their plans for building a wind farm.

Objectors used a mix of local and non-local arguments and referred to studies which claim that wind turbines were sited too close to houses because of health risks, that they decrease the quality of life and that the locations were not suitable for wind turbines for landscape and technical reasons. It would be therefore worthwhile to look at these siting conflicts as risk conflicts about the definition, distribution, and legitimacy of the risks of wind farms between competing actors, based on competing rationality claims, values, and interests (Maesele, 2010).

It is doubtful that all disagreements between stakeholders can be overcome by providing more information or by giving people an extra say (Barry and Ellis, 2011). Attitudes and behaviour towards a wind farm are rooted in values and emotions too, which are hard to change (Barry and Ellis, 2011; Gibson, 2005; Lake, 1987; Wexler, 1996). The dominant strategy to overcome opposition to wind farms usually fails, because it is still based on the assumption that objectors need to be educated out of their ignorance (Ellis et al., 2006, p. 22). The information-deficit model of public understanding of science and technology has been widely observed and criticized across the literature (Cass and Walker, 2009, p. 67; Craye et al., 2001, p. 21; Devine-Wright, 2009, p. 431). In this approach it is assumed that by providing correct and balanced information, locals will be persuaded to be supportive of what is being advocated or proposed. Research has shown that individuals opposing developments can be highly informed and cannot be presumed ignorant and that more information cannot overcome disagreements (Hunter and Leyden, 1995). Therefore, we argue that participation must be rethought. Participation must foster the acceptability rather than the acceptance of decisions.

In this section, we have shown how societal developments challenge the credibility of expertise. The current spatial planning arrangement with its 'wind rush' on scarce locations amidst a very competitive environment does not provide a good breeding ground for social acceptance. A decrease in social distance through building confidence between the community, protest groups, the local council, government authorities and wind developers is hard to achieve in the 'decide-defend-announce' model.

8. Conclusion

Wind turbines are the source of multiple conflicts over interests and meanings. Actors frame them differently. Siting conflicts are framing conflicts whereby each group represents a particular problem definition and solution to pursue particular interests and values, by selecting, excluding and stressing information, images and metaphors. Disputes about the siting of wind farms should be seen as conflicts between actors who frame their interest as the conservation of a landscape which is threatened by the local, tangible impacts of wind turbines and actors who frame the issue by stressing the global, imperceptible and fundamentally intractable benefits.

The social developments we described in this article help to explain why the implementation of a technology, which has such large support in opinion polls, can provoke so many conflicts due to fundamentally different framings. It shows that acceptability is not something which can be taken for granted. Siting conflicts are a normal and potentially positive consequence of the alienation which reflects the societal developments we have described in this article. The spatial planning process in Flanders reinforces these social, political and spatial distances and hinders trust between stakeholders. Although a more open planning process, through early and continuous community involvement can certainly have positive effects on both community and socio-political acceptance, it is unlikely that fundamental disagreements can be overcome through these means. More research on participatory processes, such as *'Oost-Vlaanderen Energielandschap'* is absolutely essential. This requires qualitative research to understand and examine the dynamics of such a process. We also need more investigations into the role of financial participation. Who participates and why? Does it foster acceptance or can it become a source of conflict as well?

This article illustrates the importance of a sociological perspective to fully understand acceptability issues in the planning of wind turbines. Siting conflicts are typical for a society which is characterized by different types of social alienation represented as 'distances' in this article. Strategic spatial planning ought to decrease these distances and shift the discussion away from the current discussions between claims about the protection of the backyard against claims about the virtues of renewable energy to a democratic debate about acceptable energy landscapes.

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